

## Liquid Cooling Solution

# 4U Coolant Distribution Unit



As computing chip power increases, liquid cooling becomes the necessary solution to replace conventional air cooling. Boyd's new 4U Liquid-to-Liquid Cooling Distribution Unit (CDU) is a state-of-the-art cooling system that maximizes cooling capability in its given volume. This benefit increases IT equipment's packaging density into a rack while adequately cooling the electronics using Boyd's cold plates and manifolds.

Depending on heat load and approach temperature requirement, Boyd's 4U CDU has a typical capacity of 80 kW. With industry-standard liquid ports and electrical connections, the system is ready for quick field installation and effortless operation. The 4U CDU has high reliability with built-in N+1 redundancies with power supply and pumps. The large LCD provides easy parameter controls and displays.

Whether you need a CDU for data center deployment, system burn-in testing, or development lab testing, this product will provide worry-free cooling. This unit seamlessly works with Boyd's rack manifold and cold plate loops for a complete end-to-end liquid cooling solution.

## System Features of 4U CDU

- Redundant pump, power supply, and temperature-sensor
- Pump speed-control for increased energy efficiency
- Pump dry-run protection for added reliability
- Simplified installation with tool-free connection
- Industry-standard communication for remote control and monitoring
- Constant temperature, pressure, and flow control
- Dynamic dew-point temperature control preventing condensation
- Auto coolant replenishing and overflow protection
- By-pass loop for standby operation
- Automatic system/manifold leakage detection and mitigation
- Integrated relief valve for safety, protection, and pressure regulation

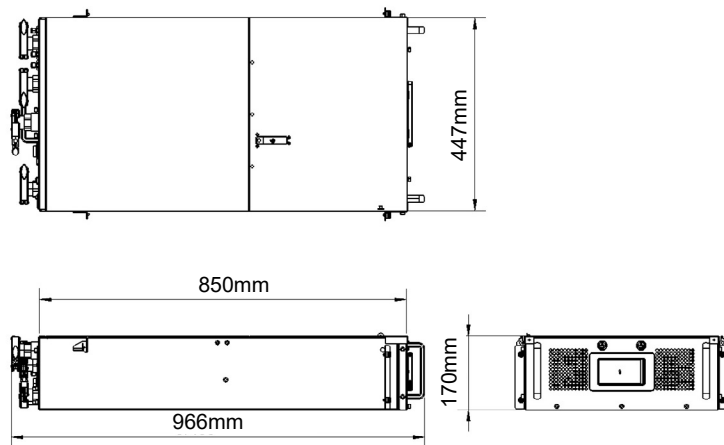


# Performance Specifications

Category	Value	Remarks
Cooling Capacity	80 kW	9.5 °C approach temperature
Power Consumption	0.8 kW	
Power Supply	100 - 240 VAC, 50/60 Hz	
Temperature Range of FSW* Supply	Up to 45 °C	Compatible with ASHRAE W4
Flowrate of FWS	Up to 140 LPM	
Maximum FWS	145 psi (10 bar)	
Flowrate Range of TCS**	10 - 100 LPM	Contact Boyd for special requirements
Pressure Drop Set Range of TCS	4.4 - 21.8 psi (30 - 150 kPa)	
Temperature Set Limits of TCS	25 - 60 °C	Typically 40 °C
Temperature Control Stability of TCS	± 1.5 °C	Contact Boyd for additional information
FWS Port Size	1.5" Sanitary Flange (Tri-clamp)	QD for option
TCS Port Size	1.5" Sanitary Flange (Tri-clamp)	QD for option
TCS Test Pressure	5 bar	Except the reservoir
Dry Weight	≤ 62 kg	
Outline Size (L x W x H)	982 x 450 x 175 (mm)	
Electric Insulation	>10 MΩ	>1500 V/1 min
Earth Resistance	<4Ω	

\*FWS: Facility Water System, also referred as Primary Loop, \*\*TCS: Technology Cooling System, also referred as Secondly Loop

# Physical Dimensions



To receive more information on CDU customization, visit us at [www.BoydCorp.com](http://www.BoydCorp.com).

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